



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P O Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

22434

7590

11/30/2010

Weaver Austin Villeneuve & Sampson LLP  
P.O. BOX 70250  
OAKLAND, CA 94612-0250

EXAMINER

UNILUS, ERNIST

ART UNIT

PAPER NUMBER

2181

DATE MAILED: 11/30/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,269	12/01/2003	Murali Basavaiah	ANDIP037/425584	3368

TITLE OF INVENTION: APPARATUS AND METHOD FOR PERFORMING FAST FIBRE CHANNEL WRITE OPERATIONS OVER RELATIVELY HIGH LATENCY NETWORKS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/28/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to:** Mail **Mail Stop ISSUE FEE**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax** **(571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

22434 7590 11/30/2010

Weaver Austin Villeneuve & Sampson LLP  
P.O. BOX 70250  
OAKLAND, CA 94612-0250

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop [ISSUE FEE] address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/726,269 12/01/2003

Murali Basavaiah

ANDIP037425584

3368

**TITLE OF INVENTION: APPARATUS AND METHOD FOR PERFORMING FAST FIBRE CHANNEL WRITE OPERATIONS OVER RELATIVELY HIGH LATENCY NETWORKS**

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/28/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
UNELUS, ERNEST	2181	710-005000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,269	12/01/2003	Murali Basavaiah	ANDIP037/425584	3368
22434	7590	11/30/2010	EXAMINER	
UNELUS, ERNEST				
ART UNIT			PAPER NUMBER	

2181

DATE MAILED: 11/30/2010

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 556 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 556 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability****Application No.**

10/726,269

**Examiner**

ERNEST UNELUS

**Applicant(s)**

BASAVAJAH ET AL.

**Art Unit**

2181

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/03/10.
2. ☒ The allowed claim(s) is/are 1-3, 6-20, and 24-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 11/12/10
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

/Chun-Kuan Lee/  
Primary Examiner, Art Unit 2181

**DETAILED ACTION****I. EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Jeffrey K. Weaver (Reg. No. 31,314) on August 3, 2010. The examiner proposed amendments to better place the application in condition for allowance, particularly adding the limitation that prior arts fail to teach. Mr. Weaver agreed.

The application has been amended as follows:

3. **Claim 1** (Currently Amended) A switch comprising:

a port configured to receive a write command frame, the frame having a header comprising an originator exchange identifier (OX\_ID) field and a receiver exchange identifier (RX\_ID) field, as well as a Host identifier field and a target identifier field, wherein the Host and the target identifier fields identify Host and target devices, and wherein the ~~OX\_ID~~~~OX\_ID~~ and the ~~RX\_ID~~~~RX\_ID~~ exchange identifier fields enable the Host and the target to keep track of various transactions between each other;

a trapping mechanism configured to trap the write command frame; and

a processor configured to process the trapped write command frame by modifying the OX\_ID field of the write command frame header to include a new value of an OX\_ID exchange identifier before sending the write command frame to the target;

wherein the processor is further configured to generate a transfer ready command frame, initialize a receiver exchange identifier (RX\_ID) of the transfer ready command frame by assigning a value to the RX\_ID field, the assigned RX\_ID corresponding to a write command session,

send the transfer ready command frame to the initiating Host before receiving a transfer ready command frame from the target;

receive a command frame with the assigned RX\_ID value; and

use the RX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges.

4. **Claim 2** (Previously Presented) The switch of claim 1, wherein the switch is an initiating Switch coupled to the Host in a first SAN.

5. **Claim 3** (Previously Presented) The switch of claim 2, wherein the processor of the initiating Switch is further configured to modify the write command frame before forwarding the write command to the target.

6. **Claims 4-5** (Cancelled)

7. **Claim 6** (Previously Presented) The switch of claim 2, wherein the processor of the initiating Switch is further configured to issue a Transfer Ready command to the Host.

8. **Claim 7** (Previously Presented) The switch of claim 1, wherein the switch is further configured to use the assigned RX-ID value as the RX\_ID for all communication related to the write command between the switch and the Host.
9. **Claim 8** (Currently Amended) The switch of claim 1, wherein the switch is further configured to use the new OX\_ID value as the OX\_ID in all communications between the ~~switch apparatus~~ and the target.
10. **Claim 9** (Previously Presented) The switch of claim 2, wherein the initiating Switch is further configured to transfer additional data frames to the target when the initiating Switch receives a Transfer Ready command associated with the write command frame from the target.
11. **Claim 10** (Currently Amended) The switch of claim 30, wherein the ~~switch~~ ~~Switch~~ is a target Switch coupled to the target.
12. **Claim 11** (Previously Presented) The switch of claim 10, wherein the target Switch forwards the write command frame to the target.
13. **Claim 12** (Previously Presented) The switch of claim 11, wherein the target Switch forwards data frames associated with the write command frame to the target after receiving a Transfer Ready command from the target.

14. **Claim 13** (Previously Presented) The switch of claim 12, wherein the target Switch is further configured to buffer the data frames prior to receipt of the Transfer Ready command.
15. **Claim 14** (Currently Amended) The switch of claim 12, wherein the target Switch is further configured to maintain a sessions ID table and to use the OX\_ID value of the write command frame as an index to the session corresponding to the write command.
16. **Claim 15** (Previously Presented) The switch of claim 10, wherein the target Switch is further configured to modify the RX\_ID value for all communication related to the write command frame between the target Switch and the Host.
17. **Claim 16** (Currently Amended) The switch of claim 14 [[5]], wherein the target Switch is further configured to modify the OX\_ID value in communications between the target Switch and the target.
18. **Claim 17** (Currently Amended) The switch of claim 1, wherein the switch is further configured to use the RX\_ID value of trapped write commands to specify the amount of buffer space needed for the write command and use the write command frame to request the needed buffer space.



Art Unit: 2181

19. **Claim 18** (Currently Amended) The switch of claim 17, wherein the switch is further configured to use the RX\_ID value of trapped write commands to specify the amount of buffer space larger than needed for the write command and use the additional buffer space for subsequent write commands so that the ~~switch apparatus~~ need not wait for a Transfer Ready command to transfer data related to the subsequent write command.

20. **Claim 19** (Previously Presented) The switch of claim 1, wherein the switch is further configured to, in the event the switch does not have sufficient buffer space for the write command, to either: (i) generate a busy status signal to the initiating Host; (ii) place the write command

21. **Claim 20** (Previously Presented) The switch of claim 1, further comprising: a first SAN including the

22. **Claims 21-23** (Cancelled)

23. **Claim 24** (Currently Amended) A method comprising:

receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX\_ID) field with an assigned value and an uninitialized receiver exchange identifier (RX\_ID) field with a default value, wherein the ~~OX\_ID~~~~OX-ID~~ and the ~~RX\_ID~~~~RX-ID~~ fields enable the host and the target to keep track of various transactions between each other;

generating a transfer ready command at the switch;

Art Unit: 2181

initializing a receiver exchange identifier (RX\_ID) of the transfer ready command by assigning a value to the RX\_ID field, the assigned RX\_ID value corresponding to a write command session;

sending a transfer ready command including the initialized RX\_ID to the host prior to receiving a transfer ready command from the target, wherein sending the transfer ready command to the host allows the switch to operate as a proxy for the target;

modifying the originator exchange identifier (OX\_ID) of the write command to generate a modified write command;

forwarding the modified write command to the target;

receiving a command with the assigned RX\_ID value; and

using the RX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges.

24. **Claim 25** (Previously Presented) The method of claim 24, further comprising configuring the switch to forward data frames associated with the write command received in response to the transfer ready command to the target.

25. **Claim 26** (Previously Presented) The method of claim 25, wherein a second switch between the switch and the target receives data frames associated with the write command and buffers the data frames until a transfer ready command is received from the target.

Art Unit: 2181

26. **Claim 27** (Currently Amended) An apparatus comprising:

means for receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX\_ID) field with an assigned value and an uninitialized receiver exchange identifier (RX\_ID) field with a default value, wherein the ~~OX\_ID~~ and the ~~RX\_ID~~ exchange identifier fields enable the host and the target to keep track of various transactions between each other;

means for generating a transfer ready command;

means for initializing a ~~RX\_ID~~ receiver exchange identifier (RX\_ID) of the transfer ready command by assigning a value to the RX\_ID field, the assigned RX\_ID value corresponding to a write command session;

means for sending a transfer ready command including the initialized RX\_ID to the host prior to receiving a transfer ready command from the target, wherein sending the transfer ready command to the host allows the switch to operate as a proxy for the target;

means for modifying the ~~OX\_ID~~ originator exchange identifier (OX\_ID) field of the write command to generate a modified write command;

means for forwarding the modified write command to the target;

means for receiving a command with the assigned RX\_ID value; and

means for using the RX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges.

Art Unit: 2181

27. **Claim 28** (Previously Presented) The switch as recited in claim 1, wherein the switch is further configured to determine from the write command an amount of data to be written to the target, to ascertain whether it has sufficient storage space to buffer the amount of data, and to send the generated transfer ready command frame to the initiating Host before receiving a transfer ready command from the target if the switch has determined that it has sufficient storage space to buffer the amount of data.

28. **Claim 29** (Currently Amended) A method comprising:

receiving a write command at a switch, the write command specifying a host identifier corresponding to a host device and a target identifier corresponding to a target device, the write command also including an originator exchange identifier (OX\_ID) field and a receiver exchange identifier (RX\_ID) field, wherein the ~~OX\_ID~~ and the ~~RX\_ID~~ exchange identifier fields enable the host and the target to keep track of various transactions between each other;

assigning a new value to the ~~OX\_ID~~ field in the write command;

forwarding the write command to the target;

receiving a transfer ready command from the target;

sending the transfer ready command to the host;

receiving a command with the assigned OX\_ID value; and

using the OX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges.

Art Unit: 2181

29. **Claim 30** (Currently Amended) ~~A switch~~ ~~An apparatus~~ comprising:

an interface;

a processor; and

a memory, at least one of the interface, the processor or the memory being for:

receiving a write command, the write command specifying a host identifier

corresponding to a host device and a target identifier corresponding to a target device, the

write command also including an originator exchange identifier (OX\_ID) field and a

receiver exchange identifier (RX\_ID) field, wherein the OX\_ID~~OX-ID~~ and the

RX\_ID~~RX-ID~~ exchange identifier fields enable the host and the target to keep track of

various transactions between each other;

assigning a new value to the OX-ID field in the write command;

forwarding the write command to the target;

receiving a transfer ready command from the target;

sending the transfer ready command to the host;

receiving a command with the assigned OX\_ID value; and

using the OX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges.

30. **Claim 31** (Previously Presented) The switch as recited in claim 1, wherein the trapping mechanism is configured to trap the write command frame if the write command frame designates a predetermined Host\_ID and a predetermined target\_ID.

**The applicant has canceled claims 4-5 and 21-23.**

**II. ALLOWABLE SUBJECT MATTER**

The following is an examiner's statement of reasons for allowance: In regards to claims 1, 24, and 27, the prior art of record fails to disclose, "receive a command frame with the assigned RX\_ID value; and use the RX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges".

In regards to claims 29, and 30, the prior art of record fails to disclose, "receiving a command with the assigned OX\_ID value; and using the OX\_ID value as a handle for accessing information pertaining to the write command session in a sessions table, the sessions table storing information about one or more sessions or exchanges"

The remaining claims 2-3, 6-20, 25-26, 28, and 31 are allowed by virtue of their dependencies on the independent claims. Hence, the examiner has allowed claims 1-3, 6-20, and 24-31.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**III. CLOSING COMMENTS**

**Conclusion**

**a. STATUS OF CLAIMS IN THE APPLICATION**

The following is a summary of the treatment and status of all claims in the application as recommended by **M.P.E.P. 707.07(i)**:

**a(1) CLAIMS ALLOWED IN THE APPLICATION**

Per the instant office action, claims 1-3, 6-20, and 24-31 have been allowed.

**b. DIRECTION OF FUTURE CORRESPONDENCES**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernest Unelus whose telephone number is (571) 272-8596. The examiner can normally be reached on Monday to Friday 9:00 AM to 5:00 PM.

**IMPORTANT NOTE**

If attempts to reach the above noted Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Alford Kindred, can be reached at the following telephone number: Area Code (571) 272-4037.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the

Art Unit: 2181

Electronic Business Center (EBC) at 866-217- 91 97 (toll-free).

Ernest Unelus  
Patent Examiner  
Art Unit 2181

November 17, 2010  
/E. U./  
Examiner, Art Unit 2181

/Chun-Kuan Lee/  
Primary Examiner, Art Unit 2181